



JULY, 1986



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LOOK -- PAY ATTENTION ** -- the next SBUG meeting will be held at the Cupertino library, Time: 7:15 P.M.

The next 3 meetings will be held on July 15, August 19 and September 16.

Certain discerning minds have discovered that if the proper calculations are made it may be determined that our meetings are held on the third Tuesday of each calender month.

......

MEMBERSHIP

If you wish to become a member of SBUG and start receiving our newsletter "DYNAMIC MEMOR IES", then send \$20 (check or money order) to the following address;

South Bay TRS-80 Users Group P.O. Box 60116 Sunnyvale, Ca.94088

or come to one of our meetings. If you also wish to communicate with our bulletin board system (SBUG-80) then include an additional \$25 (a one time fee) for an account on the system. You must be a member of SBUG to have an account on the system. Please include your address and phone number.

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If the need arises, give anyone of us a call.							

THE EDITOR'S BYTES AND BITES

This is in homage to a departed member, Don Rhodes. No, he has not died, he has moved to Los Angeles, arguably a more bitter fate. Don was our treasurer, a good one, and he was a great deal more. He took over the treasurer's job when the club's affairs were in disarray. For the first time in the club's history we had a legible, complete, monthly financial report.

Don was also the moving spirit (seconded by various) in setting up the new club bulletin board. He wrote articles for Dynamic Memories, he was a major contributor to the bulletin board, he was incessantly curious about the microcomputer field, constantly contributing bits and pieces of information that amplified the knowledge of all of us.

His programming skills and all around expertise made him a welcome contributor to the bulletin board, to the newsletter and in conversation.

We miss you, Don. There's no hope of saving L.A., but you'll certainly help to make it more bearable.

One thing more. What have YOU done for the club lately?

SBUG Financial Statement

June 28, 1986

Receipts:	May	Y-T-Date	% Used	Budget
Members dues	20.00	629.00	62.90%	1000.00
SBUG BBS Dues	25.00	25.00	12.50%	200.00
Disk Library	0.00	62.00	51.67%	120.00
Load80	0.00	216.00	108.00%	200.00
Documentation	0.00	0.00	0.00%	40.00
Interest	2.21	15.26	50.87%	30.00
Total Receipts	47.21	947.26	59.58%	1590.00
Disbursements				
Phone	0.00	254.19	105.91%	240.00
Utilties	0.00	40.00	264.00	
Printing	63.29	366.48	101.80%	360.00
Postage	22.00	116.00	77.33%	150.00
P O Box	29.00	29.00	111.54%	26.00
Bank charges	4.00	0.00	0.00	
Disk Library	0.00	204.97	409.94%	50.00
Documentation	0.00	0.00	0.00%	80.00
SBUG BBS	0.00	0.00	0.00%	200.00
Total *	100.00	1010 64	73.77%	1370.00
Disbursements	118.29	1010.64	13.1170	1370.00
Begin				
Cash Balance	353.81	519.62	100.00%	519.62
Net Receipts	~71.08	-63.38	~28.81%	220.00
Ending Balance	282.73	456.24	61.69%	739.62

GLORIOUS NEWS

We will have a new treasurer next month, the honorable Henry Schultz. He is not listed with the club officers on page two this month because the formal investiture has not yet taken place. Once the ceremonial robe has been placed around his shoulders and he has accepted the red and blue pens signifying his high office he's hooked. I mean it becomes official.

EXPAND YOUR PRINTER TO 64K FOR 8 CENTS A BYTE

by Ian Webb;

Not very long ago, memory at 8 cents per byte would have been considered amazing. For that price you can get memory plus a neat package to expand your Epson MX, RX, FX series printer to include a 64K built-in buffer.

Be warned that not all programs can effectively use a printer buffer, but even some that don't mate too well with a buffer can at least be sped up with a hardware buffer.

Wordstar isn't very fast at printing. Compared to SuperScripsit it barely pokes along as it checks each line of text before it prints it. Even with a buffer in use, over four or five pages, you only release the system with perhaps a half page left to print. However, you discover that for some reason, the printing itself is appreciably faster when a buffer is attached.

So, even with a slow word processor like Wordstar, you finish your printing perhaps one third faster. Other programs can be MUCH faster. DOS print screen happens almost instantly and if you copy a file to the PRN: you are done almost before you can look back from the just starting printer.

The biggest gain I have found for my own extensive use of Wordstar is when printing my final copy in Near Letter Quality mode using a Finger Print LetterWriter (Dresselhaus) on an FX-100, my computer is freed about half way through printing a full page document.

I saw an advertisement in Computer Shopper for a 64K printer buffer for \$55 and wrote for information. I received back a rather complete letter with information and the word that he was selling the unit for \$50 since the ad had been first placed. I sent a check for \$50 and received the unit by US Mail in about a week. I received a "Wizard" buffer manufactured by Wesper Microsystems. The circuit board looks well made and after removing the cover to your Epson printer, you plug it in directly in the connector already provided. By removing the blank over the existing parallel connector, the new board provides a new parallel connector above the old. You put your cable into the new connector and after that everything is automatic. There are four screws and washers to hold the board on posts that are in the printer.

You do have to make sure that the DIP switches power up the printer with the printer selected (normally you set them this way anyway) and unless you have a unit like the Finger Print you have to turn off the power to flush the printer buffer if you stop things in the middle of a print run. (The Finger Print unit I have allows the buffer to be dumped from the push-buttons.

If you have always wanted a hardware buffer, here is a chance to get one at less than half the price of the Tandy buffer. You don't need extra cables and you don't need to find room on your desk for it. You do lack a few features on some of the more expensive buffers like the ability to print multiple copies or to repeat pages, but for the price it is hard to beat.

Source: Brian K. Biasjo, 5391 Sunnyside Dr., Riverside, CA 92504 Telephone (714) 688-7933

Epson 64K print buffer, \$50 - State printer model (parallel only)

REPLACE YOUR Z-80 WITH A SUPER CHIP

from NORTHERN BYTES

David G. Huffman (1345 Williams Street, Des Moines, Iowa 50317) recently sent me information on a project that he has been working on. Apparently the Z-80 CPU used in the TRS-80 Models I/III/4 and in the LNW computer (which is what David uses) can be replaced with a Hitachi HD64180 CMOS Microprocessor. The HD64180 is NOT pincompatible with the Z-80, but offers much more, thus hardware types may wish to tackle a conversion project.

Some of the features of the HD64180 include: Fast operating frequency (up to 10 Mhz). On-chip Memory Management Unit supports 512k byte memory and 64k I/O address space. Two-channel Direct Memory Access Controller with memory-memory, memory-I/O, and memory-memory mapped I/O transfer capability. WAIT Input and Wait State Generator for slow memory and I/O devices. Programmable dynamic RAM refresh addressing and timing. Two-channel, full duplex Asynchronous Serial Communication Interface with programmable Baud Rate Generator and MODEM control signals. Clocked serial I/O port with high speed operation (up to 300k bps at 6 Mhz). Two-channel 16 bit Programmable Reload Timer for timing and output waveform generation. Programmable interrupt controller manages 12 interrupt sources (8 intermal, 4 external) with 3 interrupt modes. "Dual Bus" interface compatible with all standard memory and peripheral LSI.

Enhanced standard 8-bit software architecture features include: Upward compatible with existing Z-80, 8085 and 8080 system and applications software. Optimized for higher performance of standard 8-bit operating systems (e.g. CP/M80). Enhanced instruction set including high speed multiply, 1/O address relocation for board level product compatibility. SLEEP, IOSTOP, and SYSTEM STOP low power modes. Many existing Z-80/8080 instructions require fewer clock cycles to execute, thus, even with no change in CPU clock speed programs may run 10% to 20% faster.

David reports that there is only one problem in replacing a Z-80 instruction set with a HD64180, and that is that the HD64180 does not recognize the "undocumented" Z-80 instruction set (those machine language instructions that, although they do not appear in the official Z-80 instruction set, nevertheless are recognized by virtually every Z-80 ever made). David has found that a surprising amount of TRS-80 software makes use of the undocumented instructions. In his LNW conversion, he has figured out a way to divert those instructions to a section of code that translates the "undocumented" instructions to standard Z-80 code, executes it and returns to the original program.

It is my understanding that David is working on a Model 4 conversion using the HD64180. If you are a hardware hacker you may wish to obtain data and specifications sheets on this chip from your nearest Hitachi representative (or a Hitachi regional office

in Burlington, Massachusetts, Dallas, Texas, Itasca, Illinois, San Jose, California or Woodland Hills, California). In Canada contact an office of Longman Sales Inc. (Mississauga, Ontario or Kirkland, Quebec).

Will this chip spawn the next generation of modifications for the Models 1/111/4? It certainly seems to offer a lot of potential.

CLONE OF MY DREAMS

by Editor

We do not all have the same desires when it comes to choosing spouses-fortunately for the perpetuity of the race; nor would we all choose the same components
or types of components to make up a clone, fortunately for the manufacturers of said
components.

The magazine references used here are heavily weighted towards COMPUTER SHOPPER. This is because COMPUTER SHOPPER is par excellence, the magazine for the less affluent hobbyist and hacker. BYTE is for the engineer, the top notch technician and the company purchasing agent.

The following dream clone (sans flowing golden hair (put that on the chest if you're feminine)) is chosen from picking through the ads in BYTE, INFOWORLD and COMPUTER SHOPPER. It is not an ideal clone, which might run to \$20,000 and it is completely idiosyncratic. If you don't like my clone, dream your own dreams.

I have included my reasons for choosing certain features. Anyone who agrees with all my choices is obviously a rare and discerning person.

The components are numbered and the comments on them follow the list of components and are keyed to the list with the same numbers.

	COMPONENT	PRICE	SOLD BY	MAG.	PAGE
١.	AT MOTHER BOARD	799	PR EF.SOURCE	C.SHOP.	308
2.	200W POWER SUPPLY	269	PR EF.SOURCE	C.SHOP.	308
3.	30 MB HARD DRIVE	349	LEAD.EDGE	C.SHOP.	299
4.	QUIMAX MONITOR	159	TINMA	C.SHOP.	231
5.	METAL CASE	89	YILON	C.SHOP.	22
6.	2 1.2 FLOPPIES	338	C.LA P.	INFO.	57
7.	5153 KEYTRONICS	319	C.La P	INFO	57
8.	FLOP.CONTROLLER	99	COMPAT.WHSE	C.SHOP	233
9.	HD CONTROLLER	139	COMPAT.WHSE	C.SHOP	233
10.	R.S.232 CARD	30	MAGITRONIC	C.SHOP	32
11.	MONO/GR CARD	119	LOGICSOFT	BYTE	49
12.	ASS.HARDWARE	100			
	TOTAL	\$2809	(CHEAP)		

DREAM CLONE EXPLAINED

^{1.} This comes with 640k and bios installed, expandible to 1 meg. Nowadays 640k is not enough, but that can be taken care of by installing more RAM.

- 2. I attach a lot of importance to the power supply and wouldn't feel easy with less than 200W for an AT type.
- 3. 30 Mb should be enough and the price makes this a real buy. Leading Edge has a good reputation.
- 4. Be careful when you buy a monitor. All the ads say hi-res. It's something like saying a man is honest. How honest? How hi-res? This one is 13", comes with cable and 750 by 350 resolution. I had a hard time deciding not to get color. We will see color used increasingly in applications such as word processors, databases and spreadsheets. The use of color can be very effective as a teaching device and for delineation..
- 5. I don't think there is much difference in cases unless you look for a real cheaple.
- 6. Why two floppies? Why 2 1.2 meg. floppies? What do you do when the HD goes out? If you have two floppies you're still in the game. If they're 1.2 floppies you should be able to handle almost any job you were doing on the HD.
- 7. This is the AT keyboard and Keytronics makes the best. A little on the expensive side but if you've ever suffered from a poor keyboard you won't argue with this one.
- 8. With serial, parallel and clock.
- 9. Cable included
- 10. Can't do without it if you have a modem.
- 11. 720 \times 348 pixel graphics, parallel printer port, Lotus 1-2-3 compatible with TTL monochrome output.
- 12. For cables, screws and assorted small hardware. Something is always missing. (For details see Murphy's law)

Finally, although this dream was fun, I wouldn't think of doing this in real life. Things that should be compatible—aren't. Any important components should be bought from your friendly neighborhood computer dealer who will happily receive returns of faulty merchandise. Buying things by mail order can be advantageous. The use of credit cards gives the purchaser a 30 day guarantee where the exercise of the guarantee is at the purchaser's option. This is fine when you're buying a piece of software or minor hardware. Not so in this case. Returning a flawed mother board three or four times could exhaust the patience of any computer hobbyist. (Notably patient people.)

ZUCKERBOARD by Editor.

All of you Model 1000 users should read the article on the Zuckerboard on page 77 of the July COMPUTER SHOPPER. It is more interesting and dependable than the usual review because the reviewer owns a Model 1000, works with a model 1000 and installed the board himself. Of course the last review of that type that I read was written by a fellow who had just bought an LNW.

WHO WE ARE

Names and telephone numbers of SBUG members

LNAME	FNAME	PHONE #	PHONE #
Anderson	John		
Anderson	Roger	(408) 732 -4307	
Andrews	Bruce	(415) 591 -3199	
Campbell	James F.	(415) 965 -2954	
Campodonico	Steve	(408) 554-6133	
Eymil	Albert	(408) 247 -0202	
Fladager	Jo	(408) 867 -6405	
Dixon	Gary	(408) 262 -6937	
Glathe	William O.	(408) 268-7251	
Goldberg	Arther	(408) 265 -6419	
Goldberg	Harry	(408)	
Gonsalves	Jim	(408)241-9347	(415)249-5575A
Hoover	Edward F.	(415) 961 -3410	
James	Jason	(408) 983 -1284	
Janowski	Bernard	(408) 245 -4160	
King	Gerald R.	(408) 984 -2299	
Konigsberg	Robert	(408) 725 -8697	
Lee	joel R.	(408) 926 -3999	
Lloyd	Randy M.	(408) 379-0504	
Markum	Mark	(415) 969-1246	
Nguyen	Klet T.	(408) 739-6470	
Oman	Chris K.	(408) 985 -9460	(415) 742 ~8592A
Perry	David D.	(408) 730 -8175	
Pitre	Thomas J.	(408) 294 -2256	

Rhodes	Donald C.	SEE BULLETIN BOARD	1
Schulze	Henry	(408) 866 -8531	
Severin	Hank	(408) 252-0992	
Smi th	Robert	(408) 244 - 1841	
Thomp son	Bernard	(408) 867 -74555	
Thompson	Ronal	(408) 378 - 1723	
Timm	Vernon	(408) 734 -2443	
Webb	lan	(408) 867 -9533	
Whitmore	Richard	(408) 554 -6079	
Winslow	Roger		
Dodds,	ComputDawn	(408) 920-5111	
McCall	Walter A.	(408) 378 -5190	
Smi th	Peyton L.	(408) 248-6529	
Kemp	Chester A.	(415) 368 - 1263	
Brown	Robert	(408) 379-2774	
George	Brian F.	(415) 494 -0561	
Roberts	Mike	(408) 243-4853	
Woodruff	Fred	(408) 379 -9958	
Severns	Dean	(408) 886-6126	
Craver	John	(408) 462 -3125	
McKee	Gerald	(408) 943-9489	(415) 752 -3207A
Vaughn	Glenn	(408) 262 -3608	(408) 259-5349A
Sorensen	Darcy Dean	(408) 926-5782	
Carver	John	(408) 425 -5720	
Shelton	Verlie	(209) 526-5634	(408) 241-5106A
Goodspeed	David	(408) 379 -2105	
Ebenhahn	Robert	(408) 367 -4541	

Frank	(408) 257 - 3647
Ian	(408) 281 -4659
R. A.	(415) 855 -3167
Richard B.	(408)
Ron L.	(408) 262 -5193
Richard	(408) 243-3945
J. Kevin	(408) 923-6010
	Ian R. A. Richard B. Ron L. Richard

MODEL 4 CORNER

by Editor

I frequently speak of AIDSPLUS-II because it is a really excellent database file manager. I used to work with PROFILE and wasn't unhappy about it because it was a well debugged program and never gave me any trouble. However, Profile was slow as molasses and AIDSPLUS-II is fast as a fiv.

A IDSPLUS is written in machine language. There have been various revisions and I simply can't think of how it could be made better, except that it is not relational—not quite. Recently I got a flyer from SOFTRENDS regarding updates, more properly added functions for AIDSPLUS. I purchased two of them for \$49, and the only one I have used is excellent, I could almost say extraordinary.

I will quote from the brochure: RE-VISE is a new extended function designed to work within your existing AIDSPLUS-II system. It enables you to <u>directly access individual records</u> within a data file -- even if it's the size of a whole disk! REVISE is great for updating large mailing lists, looking up account balances, or locating data that may be in any one of several files. You can <u>retrieve a record</u> from the disk, <u>view it</u>, change it, and <u>put it back into the file</u>. Records do not have to be in sorted order, and <u>no index files</u> are used (saves disk space).

This is really an unusual and time saving function. It approaches relational filing. Please follow me. Boot up AIDSPLUS-II. Go into the descriptor file. The descriptor file may hand a number of data files. You may remove any given record from file 1, update it and return it to the file. If you had similar records on file 2 you could do the same, thus achieving the same result as is given by relational files. You might call it a manual relational file. Then again you might not.

I also got FILEAID. This gives me the ability to handle disk-size files for sorting. My original copy of AIDSPLUS-II loads the data into memory and even though AIDS uses a very competent storage method it typically limits the user to 400 records depending on the number of fields. I haven't used FILEAID yet, but it's there if I need it. SOFTRENDS claims the sort is at least twice the speed of a P.C. sort. I haven't caught them lying yet. AIDSPLUS-II also has an automation process called AUTOKEY. Once this has been set up a single keystroke would be sufficient to sort 800 records.

Two other new functions, AUTOMATE & AUTOLINK were also advertised but I didn't buy them. I don't do that much complicated automated work.

RE-VISE is a great program. If you have to update individual records frequently, as most database users do, it's a real time saver.

LIST OF MSDOS PUBLIC DOMAIN PROGRAMS

DIR CONTENTS			DIR CO	DNTENTS		
1 Basic Utilities 2 Disk Utilities 3 Display Utilities 4 File Listing Util. 5 Library Utilities 6 ARC/Squeeze Utilities 7 Printer Utilities 8 Keyboard Utilities 9 File Handling Util. 10 Miscellaneous Util. 21 Word Processing 23 Educational 25 Amateur Radio 27 Miscellaneous 29 PC-JR Programs -			12 Data 13 Garr 14 Mus 15 "C" 16 Ass 17 Spre 18 Bus 19 MA 20 Con 22 For 24 Pas 26 Pata 28 Not	11 Communications 12 Databases: dBase,etc 13 Games 14 Music & Graphics 15 "C" Language Pgms. 16 Assembler 17 Spread Sheets 18 Business/Financial 19 MACintosh SIG 20 Commodore SIG 22 Forth SIG 24 Pascal 26 Patches & Pgm Notes 28 Not Available 30 Advertisements/Demos		
DIR2						
NAME	EXT	SIZE		DESCRIPTION OF FILE		
	7.			==>04-11-85 Disk Utilities		
SPEED FD Z DRV PATCH FREE SLMNU	EQE EQE ARC	512	04 - 24 - 84 07 - 19 - 84 07 - 19 - 84 08 - 22 - 84 09 - 16 - 84 11 - 17 - 84 02 - 05 - 85 04 - 08 - 85	Adjust speed of disk drives Speeds up disk access by 25% Documentation for FD.COM Nice nav. aid for hard disk users Shows free space on drives.uses dos 2 Diskette look/mod utility (a la Norton) Shows free space on drives (FAST) Software Labs. Disk Manager (lite		
testing) DISKORAY DEFRAG IBU HardDisk.(un	BQS ARC ntest)	4559 4656 46080	02 -01 -85 05 -30 -85 06 -27 -85	Check your disk drive speed. Defragment disk space. (untested) Incremental Backup Utility.		
DISKPARK CACHE (untest) CACHEI (untest)		6272 640 20516	07 -22 -85 08 -12 -85 08 -29 -85	Park them hard disks. (untested) 38k disk cache. improves hd speed 20% Cache maker, includes size of cache.		
(untest) ZAP EQE 10341 09-23-85 COMPLETELY wipeout harddrive subdir (Use with extreme caution! No "are you sure?" protection)						

DOSA MATC	ARC	71680	09 - 23 - 85	disk manager and pseudo-multitasker	
DSKWATCH	ARC	5120	09 - 05 - 85	DISK Err monitor from PC-Mag. (untest).	
DM9-23	ARC	47872	10 - 20 - 85	Directory Master & DOS util. 1500	
files/subdir					
FINDUPE2	ARC	22057	10 - 20 - 85	Find duplicate files in all directories.	
PARKDISK		10118	10 - 27 - 85	Generalized for any fixed disk. With ASM	
REFRESH	ARC	1792	11-02-85	Reformat without losing data! (untested)	
DPROT101	ARC	3840	11-02-85	Write protect floppy or hard disk	
(untested)					
	СОМ	640	11-08-85	Executes cmd in every DIR [PC	
Mag](unteste					
DELZ	СОМ	768	12 -07 -85	Allows use of DEL w/ ZERO fill option	
DPROTECT		3915	12 -07 -85	Write Protects hard disks/floppy disks!!	
DLENGTH	ARC	6016	01 -03 -85	Determines .DIR lengths for hard disk	
HDPREPAT	ARC	24704	01 - 19 - 86	AT harddisk prep program ver 2.0	
(UNTESTED		24104	01 - 10 - 00	711 Hardalak prop program vol 210	
DU	BQS	4310	01-19-86	Lists bytes in each disk directory	
SCANBAD	ARC	1152	01 - 26 - 86	Find & Mark bad sectors on floppies-	
essential	ARC	1102	01-20-00	This a Mark bas accion on hopping	
	ARC	1536	02 -03 -86	Erase files across subdir w/ 1	
command.CA			02 -00 -00	Eldde lifet delete sabalt "/ 1	
HDDIAG		15162	02 - 10 - 86	Excellent Diagnostic for AT Hard Disks	
CACHE	ARC	5376	02 - 23 - 86	Hard disk cache speeds up disk access	
time!	ARC	3370	02-23-00	Trata drak cacine speeds up drak decess	
ULTRA	ARC	164K	03 -24 -86	Utilities ala Norton. Very good. Floppy	
	ARC	1041	03-24-00	Culture and Mortonia very 60000 1 10pp)	
only. FASTFMT	ARC	22400	04 - 18 - 86	Utilize both flopples for formatting.	
Good.	ARC	22400	04-10-00	curre to a nopples for formatting.	
DISKSCAN	СОМ	1024	04 - 18 - 86	Check AT hard-disk for errors. (untest)	
	CQM	39899	04 - 18 - 86	Disk manager, similar to 1-DIR.	
DM HDPREP40	ARC		04 - 25 - 86	Ver 4.0 of popular hdprep format utility.	
HUPKEF40	ARC	21320	04-23-00	ver 4.0 or popular haptep format utility.	
_			04	-11-85 Electronic Disk Utilities	
-				-11-00 Electronic Dar Others	
RAMDISK	ARC	11757	04 -03 -84	180k & 360k device drivers for DOS 2.0	
MEMBRA IN		6215	08 - 22 - 84	Ramdisk device driver, adjustable	
		7705	02 -27 -84	QuadRAM RAMDISK 8/9 sector 320/360K	
QUADRAM	ARC		04-10-84	Ouick start-up for IBM PC	
QUIKUP	ARC	1516	05 - 30 - 85	Ram disk from 6K to 255K.	
VDISK	ARC	17893	05-30-65	Ram disk from or to 255K.	
			DIF	99	
		D		ED UTILITIES	
		D	ISPERT ORIENT	ED OTIETTES	
NAME	EXT	SIZE	EFF.DATE	DESCRIPTION OF FILE	
NAME		3121	CIT.DATE	DEDCKII HOLVOI LIED	
===============>08-15-85 Display-oriented					
SCRNSAVE	ARC	8558	02 -28 -84	Shut off screen after 3 min.	
SAVE	COM		09 - 16 - 84	Saves image to inactive scrn Req 2 scrns	
CL	ARC		12 - 12 - 84	Clears screen & sets attribute to amber	
BACKSCRL		10855	12-18-84	Save and review up to 25 screens.	
	EXE	2048	01 -22 -85	Clr. and Mono Displays At The Same Time	
DOUBLE			02 - 21 - 85	Large screen printing, different fonts.	
U-FONT	BQS	2498	04 - 09 - 85	B& W/Color Monitor Switch	
DOORS	ARC	1154	04-03-03	DOL 11/CORDI MONITORI SWITCH	

PCMAGAZIN	ΙE			
TST-SCRN	BAS	1536	04 - 18 - 85	Test Color and Graphics on Monitor.
KOLOR	ARC	2953	06 - 17 - 85	Allows you to change screen colors.
U	256	07 - 17 - 8	5Disable Color fo	or B&W Mon. ALT-TAB (Untested)
NOCOLOR	ARC	2844	07 -22 -85	Use B/W Mon with C/G card. (untested)
ANSI	LQR	15488	07 -30 -85	Description of ANSI escape codes w/demo
PCWNDW22	CQM	16122	08 -01 -85	Shareware Sidekick clone.
BORDER	ARC	4864	08 - 15 - 85	Set Border colors.
GATE	LBR	38016	09 - 24 - 85	A terminal emulater for cpm-80
PAGEDISP	ARC	23808	09 - 26 - 85	Text Slide - show Maker by Bill Hileman
DEMO100	ARC	66304	10 -04 -85	Slideshow in Turbo 3.0 w/input list gen
CLOCK	COM	1024	11 - 16 - 85	PUTS TIME IN RT. CORNER W/ KEY
STATUS.				
BURN21	ARC	16000	12 -07 -85	Version 2.10 of BURNOUT
(screen saver).(unte	st)		
PROMPT	ARC	768	12 -07 -85	Set colors using ANSI.SYS and PROMPT
PUSH - POP	ARC	4864	12 - 20 - 85	Save & recover a color screen w/edit
IMMGR	ARC	35885	01 - 19 - 86	Take anapshot of screen, store, restore.
STYPE	COM	9856	04 - 25 - 86	TYPE for EGA card w/smooth scrolling
(untest)				

DIR5

LIBRARY UTILITIES DIRECTORY

NOTE: See Directory #6 for ARC utilities

NAME	EXT	SIZE	EFF.DATE	DESCRIPTION OF FILE
			=>09-12-85 LII	BRARY Utilities
LUPC LU LU VDBLU17 below) LUT18 LDIR	BAS EXE DOC LBR COM CQ	27136 22400 6272 40576 2048 6407	02 - 25 - 84 07 - 20 - 84 07 - 20 - 84 08 - 22 - 84 08 - 22 - 84 10 - 14 - 84	Adds, lists, extracts - in BASIC Adds, lists, extracts LU documentation LUE, LUT, and LUU w/source (use LUT18 LIST LIBR directory, sorted, with CRC. Source Code for LU.EXE in; C language.
LURUN LDIR03 LRUN LUE2 LUE2 LU87500 LU86402	EXE EXE LBR COM DQC EXE LBR	10496 16768 12416 2688 2432 24320 47744	12 - 28 - 84 01 - 03 - 85 02 - 21 - 85 06 - 06 - 85 06 - 06 - 85 06 - 27 - 85 09 - 29 - 85	Run programs for .LBR files Provides directory of library files. Run programs from within LBR. Latest ver. Extract/unsq LBR files. Documentation for LUE2.COM Version 8.75 of LU.EXE great utilities

DIR9

 FILE MANIPULATION DIRECTORY

NAME	EXT	SIZE	EFF.DATE	DESCRIPTION OF FILE

TABS	ARC	1872	05 -04 -84	Replaces blanks with tabs, DOS 2.0.
MOVE	ARC	851	05 - 24 - 84	Move a file to a different subdirectory.
DIFF	ARC	11361	05 - 26 - 84	ASCII file compare with resynch ability.
UNWS	ARC	9112	02 -07 -84	Changes Word Star files to ASCII
FILEDUMP	EQE	20716	10 - 30 - 84	Dumps posn, char & HEX\$ of file
CONVCOM	BQS	3498	12 - 18 -84	Convert .COM programs to .BAS
WSDOS	CQM	25550	01 -02 -85	Convert DOS files to WS & visa-versa.
COPYO	EOE	2309	03-11-85	Selectively copy files - wildcards OK.
RED	AŘC	6107	03 - 25 - 85	Move files between DOS directories
DUP	EQE	3672	05 - 16 - 85	Supposed to copy "any" file. (untested)
BACKUP	LBR	7168	05 - 23 - 85	Fixes bugs in DOS3.0 Backup.com
FDUMP	СОМ		06 - 27 - 85	Fast Hex/Ascii dump. Use FDUMP
<filename.ext></filename.ext>				
TAB2SPC	ARC	28800	08 - 22 - 85	Converts TABs to white SPACEs in files
LOWCASE	ARC	28416	08 - 22 - 85	Converts upper to lower case in files
PARTNER	ARC	35589	08 -22 -85	Resident file handling utility.
STRINGS	ARC	9216	09 - 12 - 85	Find strings in executable files
AUTOMENU		41065	09 - 23 - 85	Menu driven for PC version 3.01
DOSAMATO		71680	09 - 23 - 85	disk manager and pseudo-multitasker
	ARC	1898	10-02-85	Selectivly delete files displayed.
PURGE		14208	10 - 02 - 85	Directory lister for humans
LF29A	LBR			Excellent! Finds programs and data files.
SEARCHII	ARC	5504	10 - 20 - 85	Sorts dir w/ paths, multi-file copy/del.
FILER	CQM		11 - 16 - 85	Visual TREE cmd (PC Mag. Nov 12,85
VTREE	ARC	5632	11 - 16 - 85	VISUAL TREE CING (FC Mag. NOV 12,03
w/ASM	4.00		11 10 00	Van and assess subdiss/DC Mag. w/ASM)
SWEEP	ARC	6144	11-16-85	Xeq cmd across subdirs(PC Mag. w/ASM)
POPSICLE	CQM	38336	11-16-85	Pop-up DOS disk/file/subdir utility
POPSETUP	CQM		11-16-85	Customize utility for POPSICLE.COM
FILES	EQE	31621	12 -07 -85	DOS file manipulator. FILER Version 2.0
MARK	EXE	1152	01 -03 -85	Mark files READ-ONLY, HIDEN,
NORMAL.				
SOR TF215	LBR	5504	01 -21 -86	Sort large files quickly. Single key.
CW EEP2	EQE	22856	02 -03 -86	CWEEP Ver 2. Copy, delete, view files
and more				
UNDEL	ARC	1280	02 - 10 - 86	A utility to undelete erased files on
floppies				
FDA 2	ARC	2816	02 - 10 - 86	Whereis with size, date, time & path-PC
Mag - 2/86				
KNEW3	ARC	6016	03 - 24 - 86	Copies only new or modified files.
UTIL202	ARC	88K	03 - 24 - 86	Directory, File & Keyboard Utility Version
2.02				그 그는 전략적이 다른 화학자
COMDO120	ARC	156K	04 - 11 - 86	Ver1.2 of Sandy & Shane's new X-tree
like util.				
PAIRCRLF	ARC	1280	04 - 11 - 86	Filters to proper CRLF pairs. (untest)
CHOP6MOR		13056	04 - 11 - 86	Chop text up into pieces. (untest)
TSRFIX16	ARC	54272	04 - 11 - 86	Veri.6 of TSR - Excellent Utilities! !
PFM	ARC	37632	04 - 18 - 86	File manipulator. Somewaht flaky
w/Color.	Titte	3,002		,,
PSRC112	ARC	59008	04 - 18 - 86	Ver2.0 of SuperSearch.
1 SKC112	ARC	03000	V. 10 00	, 3. 5. 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

To be continued in our next edition, don't miss this revelation!

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FIRST CLASS MALL